

REMARKS

New claims are fully supported by the disclosure of paragraph [0044] which states “a continuous matrix of CoCrPtX and a discrete or co-continuous region of a CoPt-containing material.”

The objection to the specification should be overcome by this Amendment.

Claims 1, 2 and 4-10 were rejected under 35 USC 112, second paragraph. This rejection is respectfully traversed and should be withdrawn in light of this Amendment.

Claims 1, 2 and 5-9 were rejected as being anticipated by Kikitsu '054. Claims 1, 2 and 7-9 were rejected as being anticipated by Kikitsu '620. These rejections are respectfully traversed and should be withdrawn as claim 1 now contains a limitation of claim 3 that “said portion comprises less than 5 atomic percent Cr.”

Claims 3 and 4 were rejected as being obvious over Kikitsu '054 in view of Takizawa. This rejection is respectfully traversed.

Paragraph [0044] of the specification states:

The steps for manufacturing the media are: (1) Depositing an orienting underlayer(s) on a substrate. (2) Depositing a second magnetic layer, typically a Co-containing alloy magnetic layer. Common alloying elements include Cr, Pt, Ta, Ti, Ni, Si, O, as well as others. (3) Forming a first magnetic layer, typically having Co and Pt containing grains in a non-ferromagnetic continuous matrix. This formation of the first magnetic layer is done by first depositing a CoPt layer, then depositing a very thin CrX grain isolation layer (where X represents zero or more alloying elements), and finally annealing the layers to cause the CrX to diffuse into the CoPt layer thereby forming a continuous matrix of CoCrPtX and a discrete or co-continuous region of a CoPt-containing material including little or substantially no Cr. (4) Depositing a protective overcoat.

By the manufacturing method of the embodiments of this invention, Applicant's magnetic recording medium has Co-containing continuous matrix which is not disclosed in either Kikutsu '054 or Takizawa.

In fact, Kikutsu '054 explicitly states that there is no Co or Pt in the continuous non-magnetic matrix. For example, see column 22, lines 33-44, of Kikutsu '054, which states:

This magnetic thin film was found to be constituted by magnetic metal grains made from CoPt and a nonmagnetic matrix made from Si--O. The composition of the nonmagnetic matrix was close to SiO₂. This material has a Vickers hardness of 2 GPa in a bulk form. The resultant magnetic thin film was dipped into aqua regia to selectively dissolve only CoPt. Consequently, it was confirmed that only the nonmagnetic matrix portion remained unchanged in the form of the original magnetic thin film and this nonmagnetic matrix was continuously present in the direction of film thickness and the in-plane direction of the magnetic thin film.

After dipping the magnetic thin film of Kikutsu '054 into aqua regia to selectively dissolve only CoPt, it was confirmed that only the nonmagnetic matrix portion remained unchanged in the form of the original magnetic thin film and this nonmagnetic matrix was continuously present in the direction of film thickness. This proves that there was no Co or Pt present in the nonmagnetic matrix portion of the magnetic film of Kikutsu '054.

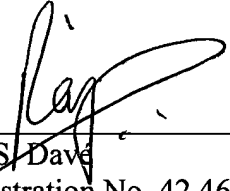
Takizawa was relied in the Action to argue that "oxides of silicon and oxides of chromium are known equivalents in the field of non-magnetic matrix material useful for segregating magnetic grains." See paragraph 10 of the Action. While Applicant does not agree with this statement of the Examiner, Applicant would like clarify that Takizawa, like Kikutsu '054, fails to disclose a magnetic recording medium having Co-containing continuous matrix. In short, even the combination of Kikutsu '054 and Takizawa fails to disclose all of the elements and limitations of claim 1 *as a whole*.

Claims 2, 5 and 6 were rejected as being obvious over Kikitsu '054 in view of Fullerton. Claims 2, 5 and 6 were rejected as being obvious over Kikitsu '620 in view of Fullerton. These rejections are respectfully traversed and should be withdrawn as claim 1 now contains the limitation of claim 3.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 146712003900.

Respectfully submitted,

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